

# 'Hachita' Blue Grama

*Boutelous gracilis* (H.B.K.) Lag. Ex Steud.

A Conservation Plant Release by USDA NRCS Los Lunas Plant Materials Center



'Hachita' Blue Grama (*Boutelous gracilis*)

'Hachita' blue grama (*Boutelous gracilis* [H.B.K.] Lag. Ex Steud.) was released by the New Mexico State University's Los Lunas Agricultural Science Center, the Colorado State University, and the USDA Natural Resources Conservation Service Los Lunas Plant Materials Center.

### Description

'Hachita' blue grama is a native, warm-season grass. The stems of this densely tufted grass are 8 to 20 inches (20 to 50 cm) tall on the range, and up to 45 inches (114 cm) tall in irrigated seed production fields. They are leafy at the base. The leaves are 2 to 7 inches (5 to 18 cm) long and .03 to .08 inches (1 to 2 mm) wide. The leaf blades are flat or curved slightly inward along the edges. Although the blades are smooth, there are a few soft hairs at the junction of the leaf blade and stem. They are 0.6 to 2 inches (1.5 to 5 cm) long and are eyebrow-shaped at maturity.

### Source

'Hachita' blue grama was first collected in 1957 from a semi-arid plains site that had been invaded by mesquite 32 miles (51.5 km) south of Hachita, New Mexico. Associated species included tobosagrass, vine mesquite, burrograss, and threeawn. The elevation of the site was approximately 4,400 feet (1342 m), and the estimated annual precipitation was 10 inches (26 cm).

### Conservation Uses

'Hachita' blue grama is a good ground cover and provides valuable protection from soil erosion. Because 'Hachita' blue grama is more drought resistant than other varieties of blue grama, it is well-suited for rangeland improvement, mine-spoil reclamation, and roadside stabilization in the semiarid Southwest. It makes excellent pasture or lawngrass. It requires less water than traditional turfgrasses.

### Area of Adaptation and Use

Blue grama (*Boutelous gracilis* [H.B.K.] Lag. ex Steud.) is widely distributed throughout the Americas. It is found at elevations of 1,000 to 7,000 feet (305 to 2131 m) from Canada south through Mexico and into South America. 'Hachita' blue grama is climatically adapted to areas of southeastern Utah, northeastern Arizona, New Mexico, Kansas, and the panhandles of Texas and Oklahoma, where blue grama is recommended at elevations of 3,000 to 7,500 feet (916 to 2288 m).

### Establishment and Management for Conservation Plantings

To establish 'Hachita' blue grama as a pasture or range grass, plant 1½ to 2½ pounds per acre (1.7 to 2.8 kg/ha) of pure live seed between June 15 and August 15. For a lawn, broadcast 1 pound per 1000 square feet (49 kg/ha) and mulch with straw.

### Ecological Considerations

'Hachita' blue grama's high palatability to livestock makes it a choice forage species. Because it cures well on the ground by retaining as much as 50 percent of its nutritive value, it makes good fall and winter forage. It also withstands grazing.

### Seed and Plant Production

'Hachita' blue grama grows well on soils of all textures from sandy or gravelly loams to clays.

Tests by USDA-Science Education Administration-Agriculture Research (SEA-AR) in Fort Collins, Colorado, show that 'Hachita' blue grama has greater seedling vigor and that it develops adventitious roots quicker than 'Lovington' blue grama. Both characteristics aid in the establishment of 'Hachita' blue grama, particularly in the arid and semi-arid Southwest.

'Hachita' blue grama is extremely drought resistant. From 1961 to 1964, the average rainfall at Los Lunas from May 1 to November 1 was 4.75 inches (12 cm). That 4-year average is 1.18 inches (3 cm) less than the typical 20-year average. During this time, while 30 percent of the

'Hachita' blue grama solid rod-row plantings survived, most of the other varieties died.

Forage production of 'Hachita' blue grama varies widely, depending on the fertilization level, soil fertility, and precipitation. Tests in Oklahoma show that the crude protein yield and digestibility of 'Hachita' was significantly higher than that of 'Lovington' with either 0 or 37 pounds per acre (0 or 41.5 kg/ha) of nitrogen. 'Hachita' also had a significantly higher response to nitrogen fertilizer than did 'Lovington.' Field research in Nebraska produced 2,719 pounds per acre (3,045 kglha) of forage, while similar research in Kansas produced 5,380 pounds per acre (6,025 kg/ha) of dry matter.

#### **Availability**

*For conservation use:* If you're interested in using 'Hachita' blue grama in a lawn, pasture, or range planting, contact your local County Extension Service or your local USDA–NRCS Office for information on where to buy seeds and how to use and plant them.

*For seed or plant increase:* Breeder seed is produced by the USDA-NRCS Los Lunas Plant Materials Center. Limited quantities of foundation 'Hachita' blue grama seed are available to seed growers through New Mexico State Seed Certification Program.

*For more information, contact:*  
Los Lunas Plant Materials Center

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FAX: 505-865-5163

<http://plant-materials.nrcs.usda.gov/nmpmc/>

#### **Citation**

Conservation Release Brochure 'Hatchita' blue grama (*Bouteloua gracilis*). USDA-Natural Resources Conservation Service, Los Lunas Plant Materials Center, Los Lunas, NM 87031. Published June 1982; Edited: JUN 21, 2011 ds

For additional information about this and other plants, please contact your local USDA Service Center, NRCS field office, or Conservation District <<http://www.nrcs.usda.gov/>>, and visit the PLANTS Web site <<http://plants.usda.gov>> or the Plant Materials Program Web site <<http://www.plant-materials.nrcs.usda.gov>>

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